

**ABSTRACT**

This invention relates to an apparatus and method for the production and storage of hypochlorite, typically sodium hypochlorite, and hydrogen integrating a method of electrochemical power generation using said hydrogen. A brine solution is supplied to  
5 an electrolytic cell(s) where hypochlorite and hydrogen gas are evolved. The hypochlorite and hydrogen are separated and then stored or used directly. The hydrogen is transferred from the storage system to, or used as it is separated by, a proton exchange membrane fuel cell (PEMFC) device that produces electrical energy.

10